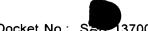
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## What is claimed is:

- 1. A method for adjusting a target bit rate for a frame, said method comprising the steps of:
- (a) determining a picture quality measure of a current frame for a particular frame type;
- (b) determining a picture quality measure for each of a plurality of immediately previous frames corresponding to said frame type of said current frame;
- (c) computing an average picture quality measure from said picture quality measures of said plurality of immediately previous frames;
- (d) computing a difference between the average picture quality measure and the picture quality measure of said current frame for producing a resultant value;
- (e) comparing the resultant value to a threshold value for producing a comparing result; and
  - (f) adjusting said target bit rate in response to said comparing result.
- 2. The method of claim 1, wherein said frame type is an intra-frame.
- 3. The method of claim 1, wherein said frame type is a predicted frame.
- 4. The method of claim 1, wherein said frame type is a bi-directional predicted frame.



- 5. The method of claim 1, where said adjusting step (f) comprises the step of: reducing said target bit rate if said resultant value is less than said threshold value.
- 6. The method of claim 1, where said adjusting step (f) comprises the step of: increasing said target bit rate if said resultant value is greater than said threshold value.
- The method of claim 1, wherein said picture quality measure is a 7. just noticeable difference (JND) measure.
- The method of claim 1, wherein said picture quality measure is a 8. peak signal to noise ratio (PSNR) measure.
- 9. The method of claim 1, wherein said picture quality measure is a mean square error (MSE) measure.
- 10. The method of claim 1, wherein said current frame is considered one of said plurality of immediately previous frames for computing said average picture quality measure.



- 11. A computer readable medium having stored thereon a plurality of instructions including instructions which, when executed by a processor, causes the processor to perform a method comprising the steps of:
- (a) determining a picture quality measure of a current frame for a particular frame type;
- (b) determining a picture quality measure for each of a plurality of immediately previous frames corresponding to said frame type of said current frame;
- (c) computing an average picture quality measure from said picture quality measures of said plurality of immediately previous frames;
- (d) computing a difference between the average picture quality measure and the picture quality measure of said current frame for producing a resultant value;
- (e) comparing the resultant value to a threshold value for producing a comparing result; and
  - (f) adjusting said target bit rate in response to said comparing result.
- Apparatus for encoding an input image sequence having at least one input 12. frame, where said frame is partitioned into at least one block, said apparatus comprising:

a block motion compensator for computing a motion vector for the block and for generating a predicted image using said motion vector;

a transform module for applying a transformation to a difference signal between the input frame and said predicted image, where said transformation produces a plurality of coefficients;

a quantizer for quantizing said plurality of coefficients with a quantizer scale;

a controller for adjusting a target bit rate for a current frame in response to comparing a difference of a picture quality measure of said current frame and an average picture quality measure of a plurality of immediately previous frames corresponding to a frame type of said current frame to a threshold value; and

a coder for coding said plurality of quantized coefficients.

- 13. The apparatus of claim 12, wherein said frame type is an intra-frame.
- 14. The apparatus of claim 12, wherein said frame type is a predicted frame.
- 15. The apparatus of claim 12, wherein said frame type is a bi-directional predicted frame.
- 16. The apparatus of claim 12, wherein said controller reduces said target bit rate if said resultant value is less than said threshold value.
- 17. The apparatus of claim 12, wherein said controller increases said target bit rate if said resultant value is greater than said threshold value.
- 18. The apparatus of claim 12, wherein said picture quality measure is a just noticeable difference (JND) measure.
- 19. The apparatus of claim 12, wherein said picture quality measure is a peak signal to noise ratio (PSNR) measure.

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- 20. The apparatus of claim 12, wherein said picture quality measure is a mean square error (MSE) measure.
- 21. The apparatus of claim 13, wherein said current frame is considered one of said plurality of immediately previous frames for computing said average picture quality measure.